

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of YUDIN, A. et al.  
Serial No.: 10,031,449  
Int. Filing Date: July 21, 2000  
Title: ASYMMETRIC LIGANDS HAVING USE AS CATALYSTS  
Art Unit: 1614  
Examiner:  
Atty's Docket No.: 61905/2

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Dear Sir:

We enclose the following:

1. Information Disclosure Statement, letter of explanation.
2. Substitute form 1449/PTO listing no U.S. Patent Documents and no Foreign Patent Documents.
3. Substitute form 1449/PTO listing Other Documents (1 page, in duplicate), and copies of listed references.

It is not believed that any fee is required to accompany the submission of the Information Disclosure Statement and enclosed references. However, in the event that a fee is required, the Commissioner is requested to charge any such fee for the papers being filed with this letter, or credit any overpayment, to Account No. 02-2553.

Should any Patent Office Official want to telephone, the call should be made to Brian W. Gray (Registration No. 30,017) at (416) 863-3256.

Yours very truly,

Brian W. Gray  
Registration No. 30,017

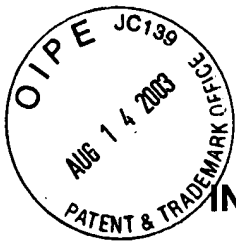
August 13, 2003  
Date

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PATENT TRADEMARK OFFICE



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: YUDIN, A. et al.  
Assignee: Ylektra Inc..  
Application No.: 10/031,449  
Filing Date: July 21, 2000  
Title: ASYMMETRIC LIGANDS HAVING USE AS CATALYSTS  
Art Unit: 1614  
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Atty's Docket No.: 61905/2

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### INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In accordance with 37 C.F.R. 1.56, the applicant wishes to call the attention of the Examiner to the references contained in an Information Disclosure Statement by Applicant (Substitute for form 1449A/PTO), enclosed herewith. Copies of the references are enclosed in accordance with 37 CFR 1.98.

References 1, 4, 5 and 6 were cited in the International Search Report during the international phase of prosecution of this application.

References 2 and 3 were cited in the International Preliminary Examination Report for this application.

The remaining references are taken from the undersigned's files.

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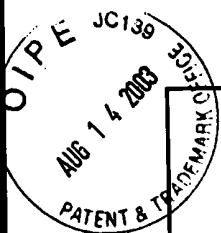
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Brian W. Gray  
Registration No. 30,017

August 13, 2003  
Date

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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet	2	of	2
<b>Complete if Known</b>			
Application Number		10/031,449	
Filing Date		July 21, 2000	
First named Inventor		YUDIN, A.	
Group Art Unit		1614	
Examiner Name			
Attorney Docket Number		61905/2	

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s) publisher, city and/or country where published	T <sup>2</sup>
	1.	TERADA, M. et al. "Diastereoselective and Enantioselective Glyoxylate-Ene Reaction Catalyzed by New Class of Binaphthol-Derived Titanium Complex". Tetrahedron Letters: 35, pp. 6693-6696, 1994.	
	2. ✓	SAKAI, T. et al. "Synthesis of Enantiomerically Pure (1R, 2S)- and (1S, 2R)- 2-Amino-1,2-bis(pentafluorophenyl) ethanols". Tetrahedron: Asymmetry: 7, pp. 1883-1886, 1996.	
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	5.	JAFFRES, P. et al. "Phosphonation of 1,1'-binaphthalene-2,2'-diol (BINOL): synthesis of (R)- and (S)-2,2'-dihydroxy-1,1'-binaphthalene-6,6'-diylidiphosphonic acid". J. Chem. Soc., Perkin Trans.: 1, pp. 2083-2089, 1998.	
	6.	YUDIN, A. et al. "F <sub>8</sub> BINOL, an Electronically Perturbed Version of BINOL with Remarkable Configurational Stability". Organic Letters: 2, pp. 41-44, 2000.	
	7.	CHEN, Y. et al. "Regioselective Substitution of Fluorine in F <sub>8</sub> BINOL as a Versatile Route to New Ligands with Axial Chirality". Organic Letters: 2, pp. 3433-3436, 2000.	
	8.	MARTYN, L.J. et al. "Catalytic applications of F <sub>8</sub> BINOL: asymmetric oxidation of sulfides to sulfoxides". Journal of Organometallic Chemistry: 603, pp. 98-104, 2000.	
	9.	PANDIARAJU, S. et al. "Generation of Highly Enantioselective Catalysts from the Pseudoenantiomeric Assembly of BINOL, F <sub>8</sub> BINOL, and Ti(O <sup>i</sup> Pr) <sub>4</sub> ". Journal of American Chemical Society: 123, pp. 3850-3851, 2001.	
	10.	PANDIARAJU, S. et al. "Toward New Coordination Environments and Molecular Architectures Using F <sub>8</sub> BINOL, and Electron-Poor Isostere of BINOL" Isr. J. Chem.: 41, pp. 309-312, 2001.	

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.